



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/065,807

11/21/2002

Shigefumi Odaohhara

JP920010333U

7978

53493

7590

08/30/2006

LENOVO (US) IP Law

Mail Stop ZHHA/B675/PO Box 12195

3039 Cornwallis Road

RTP, NC 27709-2195

EXAMINER

BOATENG, ALEXIS ASIEDUA

ART UNIT

PAPER NUMBER

2838

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,807

Applicant(s)

ODAOHHARA, SHIGEFUMI

Examiner

Alexis Boateng

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-16,19-23 and 26 is/are pending in the application.
- 4a) Of the above claim(s) 5-15 and 19-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,16,22,23, and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagai (U.S. 5,982,153).

Regarding claims 1, Nagai discloses wherein an apparatus comprising:

a computer which consumes power (column 1 lines 10 – 25: system is used for many electronic apparatus including mobile computers);

a battery which supplies power to the computer through a line by discharging after being charged (figure 2 item 5);

a high capacity capacitor connected to a the power line in parallel with the battery (figure 2 item C2);

a switch for disconnecting the high capacity capacitor and said series combination of said switch and said high capacity being coupled in parallel with said battery and said computer (figure 2 item SW1); and

a controller for controlling operations of the switch, the controller configured to disconnect the high capacity from the power line using said switch when the battery is disconnected from the power line, when the computer is powered off or when the computer kept in a small-power consumption mode

(figure 2 item 12; column 3 line 17 – 59; column 4 lines 23 – 45: charging is stopped by the charger based of the detected charged state).

Regarding claim 4, Nagai discloses wherein the high capacity capacitor and the switch are integrated so that they can be set to the computer (column 1 lines 10 – 25: system is used for many electronic apparatus including computers).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16, 23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai (U.S. 5,982,153) in view of Hayashi (U.S. 2002/0026594).

Regarding claim 16, Nagai discloses wherein an intelligent battery set to a computer to supply power to the computer by discharging after being charged, comprising: cell for supplying power through a predetermined power line (figure 2 item 5); a high capacity capacitor connected to the power line in parallel with the cell under a predetermined condition (figure 2 item C2); a switch for disconnecting or connecting the high capacity capacitor from or to the power line by a circuit, said switch series combination with said high capacity capacitor and said series combination of said switch and said high capacity capacitor being

coupled in parallel with cell and the computer (figure 2 item SW1); a CPU for controlling operation of the switch (figure 2 item 12). Nagai discloses the invention as previously claimed, but does not disclose the remainder. Hayashi discloses in paragraphs [0113] – [0122] wherein the capacitor is disconnected with the computer enters a wake on LAN mode. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Nagai system with the Hayashi system so that computer charged with excess current.

Regarding claim 23, Nagai discloses a battery, which supplies power to the computer through a power line by discharging after being charged (figure 2 item 5); a switch (figure 2 item SW1); a high capacity capacitor coupled in series with said switch to the power line, the series combination of said switch and said high capacity being coupled in parallel with the battery (figure 2 item C2); wherein the switch couples and decouples said high capacity from and to the power line (figure 2 item SW1), and a controller for controlling operation of the switch and which acts to conditionally decouple the high – capacity capacitor from the power line, when the computer is powered off, or when the notebook computer is kept in a small power consumption mode (figure 2 item 12; column 3 line 17 – 59; column 4 lines 23 – 45: charging is stopped by the charger based of the detected charged state). Nagai discloses the invention as claimed, but does not disclose wherein a notebook computer is used. Hayashi discloses in figure 1 wherein item 1, is a notebook computer. At the time of invention, it would have been

obvious to a person of ordinary skill in the art to modify the Nagai system with the Hayashi system so that charging can be regulated in a notebook computer.

Regarding claim 26, Nagai discloses wherein the high capacity capacitor and the switch are integrated so that they can be set to the computer (column 1 lines 10 – 25: system is used for many electronic apparatus including mobile computers). Nagai does not disclose wherein a notebook computer is used. At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Nagai system with the Hayashi system so that the notebook computer is not damaged by overcharging.

5. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai (U.S. 5,982,153).

Regarding claims 22, Nagai discloses wherein an apparatus comprising:

a cell for supplying power through a predetermined line (figure 2 item 5);

a high capacity capacitor connected to a the power line in parallel with the battery (figure 2 item C2);

a switch for disconnecting the high capacity capacitor and said series combination of said switch and said high capacity being coupled in parallel with said battery and said computer (figure 2 item SW1); and

a CPU for controlling the operations of the switch (figure 2 item 12);

a CPU detects the state in which the cell is not connected to the computer or a state in which it is unnecessary to supply a peak power to the computer when the cell is set to the computer and controls operations of the switch based

on a detected state (figure 2 item 12; column 3 line 17 – 59; column 4 lines 23 – 45: charging is stopped by the charger based of the detected charged state).

Nagai discloses the claimed invention, but does not disclose wherein the high capacity capacitor having an equivalent series in the range of ten to one hundred milliwatts and a capacitance in the range of zero point one to ten Farads. Nagai discloses in column 3 lines 5 – 30 and wherein a capacitance is used. It would have been obvious to one having ordinary skill in the art at the time of invention was made to provide a range of values for the resistance and capacitance such as 10 – 100mW and 0.1-10F respectively. Since it has been held that there where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexis Boateng whose telephone number is (571) 272-5979. The examiner can normally be reached on 8:30 am - 6:00 pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on (571) 272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2838

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AB



KARL EASTHOM
SUPERVISORY PATENT EXAMINER